

Listing of the Claims:

The following is a complete listing of all the claims in the application, with an indication of the status of each:

1. (Currently amended) Method for the generation of chondrons comprising the step of:
cultivation of chondrocytes at a first unphysiologically high extracellular concentration concentrations of magnesium (Mg); then
cultivating said chondrocytes at, wherein said unphysiologically high extracellular concentrations of Mg range up to 20 mM, and characterized in that at least once a first unphysiologically high extracellular Mg concentration is increased to a second unphysiologically high extracellular Mg concentration of Mg wherein said second unphysiologically high extracellular concentration of Mg is increased over said first unphysiologically high extracellular concentration of Mg, and
wherein said first unphysiologically high extracellular concentration of Mg is used during chondrocyte proliferation and said second unphysiologically high extracellular concentration is used during chondrocyte differentiation during cell cultivation which promotes proliferating chondrocytes to form chondrons.
2. (Original) The method according to claim 1, wherein said magnesium is a solution of magnesium sulphate or magnesium chloride.
3. (Currently amended) The method according to claim 1, wherein said second unphysiologically high extracellular concentration of Mg ranges concentrations of said magnesium solution range from about 21 +2 mMol to about 65 mMol.
4. (Previously presented) The method according to claim 1, wherein the cultivation of the chondrocytes is further affected in the presence of fetal calf serum (FCS) or mammalian serum.
5. (Previously presented) The method according to claim 1, wherein the cultivation of the chondrocytes is further affected in the presence of at least one growth factor and/or cytokine and/or hormone.

6. (Previously presented) The method according to claim 1, wherein said chondrocytes are isolated from tissue of a mammal.
7. (Previously presented) The method according to claim 1, wherein said chondrocytes are differentiated from chondrocyte precursor cells and/or from mesenchymal stem cells and/or embryonic stem cells and/or adult stem cells.
8. (Previously presented) The method according to claim 7 wherein the chondrocytes are of mammal origin.
9. (Original) The method according to claim 8, wherein the chondrocytes are of human origin.
10. (Currently amended) The method according to claim 1, wherein the chondrocytes are seeded into tissue culture flasks and are cultivated in monolayer culture with medium supplemented with FCS and concentration of magnesium is initially in the range of 11 to 25 mMol.
11. (Previously presented) The method according to claim 6, wherein when increasing the Mg concentration the cells are embedded in alginate and cultured in medium supplemented with serum from said mammal.
12. (Original) The method according to claim 11 wherein the cultivation is effected under an oxygen partial pressure of 8%.
13. (Canceled)
14. (Original) The method according to claim 1, wherein cultivation is performed in vitro.
- 15-17. (Canceled)
18. (Previously presented) The method according to claim 6, wherein the chondrocytes are of human origin.

19-20. (Canceled)

21. (Previously presented) The method according to claim 8, wherein when increasing the Mg concentration the cells are embedded in alginate and cultured in medium supplemented with serum from said mammal.